17th Clinical Trials on Alzheimer's Disease (CTAD)

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logistic regression of no show rates (the outcome with the largest screening call duration effect size in the multinomial regression) against screening call duration while controlling for scheduling lag also revealed a clearly significant effect (β = -0.0051, p= 0.026). **Conclusion:** Based on the outcomes of the analysis, it is clear that there is a negative relationship between screening call duration and no-show rates for initial screening appointments for Alzheimer's Disease drug trials; potential participants who spend more time on the phone are less likely to outright not attend a scheduled initial screening appointment. One potential reason for this observed behavior could be that a longer conversation during the phone screening process helps build a better connection between the potential participant and the clinic conducting the trial. This improved rapport leads to higher commitment levels - so even if the person cannot attend their appointment, they will at least call in to cancel their appointment, freeing up the time slot for someone else. Alternatively, a longer conversation on the phone talking about the trial could make it easier for someone with cognitive impairment to remember any subsequent appointments that resulted from that conversation. This could be another potential explanation for the observed relationship between call duration and no show rates. Unfortunately, the analyses conducted in this study are merely correlative and not enough to conclusively infer a causal relationship between phone screen duration and no show rates; additional studies will be necessary in order to determine causality of the relationship.

LP001- FREQUENCY OF SAE AND MORTALITY RATE IN ALZHEIMER'S DISEASE (AD) CLINICAL TRIALS: DATA FROM MEDICAL AND STATISTICAL REPORTS FROM US FDA INCLUDING SEVEN APPROVED MEDICATIONS CONSISTING OF A TOTAL DATABASE OF 19,921 SUBJECTS. A. Arora[1], A. Khan[1] *(1. Northwest Clinical Research Center - Bellevue (United States))*

Background: Although several therapeutic agents have come to market for AD, there is controversy about their safety, specifically related to serious adverse events (SAEs) and mortality risk with these agents compared to placebo and at the severity of the syndrome (Wolk et al, 2023). In order to quantify these risks, we collected data from the clinical trials for four ACh reuptake inhibitors (AChEIs) and the more recently approved three monoclonal antibodies (mAb). **Methods:** We reviewed extensive safety data from the US FDA Medical and Statistical reports from https://www.accessdata.fda.gov/. We focused on the total number of subjects assigned to the drug versus placebo and evaluated the frequency of SAEs and mortality rates. Data was obtained for approved doses of memantine, galantamine, rivastigmine, donepezil, lecanemab, aducanumab, and donanemab. Patient exposure years (PEY), representing the total time participants are exposed to a treatment, were taken from safety data, or calculated by multiplying the exposure duration by the number of patients and summing these products. **Results:** The mortality rate across all AD trials, including 19,921 patients, was 0.8%. This rate was consistent among patients assigned to placebo in trials for AChEIs (78/9,775, 0.8%) and those assigned to the drug (85/11020, 0.8%). In mAb trials, the rate was (29/2858, 1%) in the placebo group and (37/2856, 1.3%) in the drug group. Using the PEY method, the mortality rate of patients in AChEI trials assigned to placebo was 1755/100K/yr, while that of those assigned to the drug was 1719/100K/yr. In mAb trials, the mortality rate for patients assigned to placebo was 585/100K/yr, and for those assigned to the drug, it was 746/100K/yr. A similar pattern is seen among the rate of SAEs. In AChEI trials, the rate of SAEs among patients assigned to placebo was (353/6043 patients, 5.8%), and for those assigned to the drug, it was (504/8164, 6.2%). Among patients assigned to placebo in mAb trials was (376/2858 patients, 13.2%) for those assigned to placebo and (418/2856, 14.6%) for those assigned to the drugs. Using the PEY analysis method, the rate of SAEs for AChEIs was 23,146/100K/yr for placebo and 25,676/100K/yr for the drug. For mAb, the SAE rate was 7,582/100K/yr for placebo and 8,429/100K/yr for the drug. **Conclusion:** The relatively low rate of SAEs and mortality rates were not expected. In other words, even in the relatively longer trials (six to eighteen months) included here, these data are from highly selected outpatients who were not in the terminal stages of the illness and thus do not assess the true morbidity and mortality seen with Alzheimer's disease, between approved medications and placebo. Since some of the AD patients in AChEI trials may have had a more advanced stage of the illness, the morbidity and mortality were somewhat higher among these trials, although still very low. Clinical trials that include subjects with a far more advanced stage of AD or trials that last for much longer periods of participation are needed to truly assess the morbidity and mortality of the newer therapies compared to placebo. **Keywords:** Alzheimer's Disease, Monoclonal Antibodies, Acetylcholine Reuptake Inhibitors, mortality. **Disclosures:** Public domain data used. Authors declared no competing interests. **References:** 1. "DRUGS@FDA: FDA-Approved Drugs." FDA, www.accessdata.fda.gov/scripts/cder/daf/index.cfm. 2. Wolk, D. A., Rabinovici, G. D., & Dickerson, B. C. (2023). A Step Forward in the Fight Against Dementia-Are We There Yet?. JAMA neurology, 80(5), 429–430. https://doi.org/10.1001/jamaneurol.2023.0123.

LP002- THE IMPORTANCE OF RIGOROUS DATA QUALITY ASSURANCE AND MANAGEMENT IN CLINICAL STUDIES OF THE AI ERA: THE INNOVATIVE AI-MIND STUDY. V. Andersson[1], C. Hatlestad-Hall[1], A. Drews[2], H. Renvall[3,4], F. Maestú[5,6], C. Marra[7,8], I.H. Haraldsen[1], P.M. Rossini[9] *(1. Oslo University Hospital - Oslo (Norway), 2. University of Oslo - Oslo (Norway), 3. Helsinki University Hospital - Helsinki (Finland), 4. Aalto University - Helsinki (Finland), 5. Universidad Complutense Madrid - Madrid (Spain), 6. San Carlos University Hospital - Madrid (Spain), 7. Università Cattolica del Sacro Cuore - Rome (Italy), 8. Fondazione Policlinico Universitario Agostino Gemelli IRCCS, - Rome (Italy), 9. IRCCS San Raffaele Pisana - Rome (Italy))*

Background: Dementia, particularly Alzheimer's disease, affects millions of people worldwide, with mild cognitive impairment (MCI) often being a precursor to the disease. Current diagnostic methods are invasive, costly, both in time and financially, and show low sensitivity which limits their effective use in early detection. The AI-Mind project [1] aims to address these challenges. Effective AI-based diagnostic tools require rigorous data quality assurance and automated management systems to ensure the integrity and accuracy of multimodal data, such as EEG recordings, cognitive tests, and biomarkers in case of AI-Mind. Our approach facilitates the development of cost-effective, non-invasive diagnostic tools to identify individuals at dementia risk at a non-symptomatic stage. **Methods:** The AI-Mind project is a five-year initiative with a two-year longitudinal clinical study involving 1,000 MCI participants aged 60-80 years at the time of recruitment from four European countries. Data management is conducted via automated injection procedures to one secure Server for